Smoke Free Montcalm



Five Key Points and Reference Documents



Prepared by

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Smoke Free Montcalm Reference Document – June 26, 2007

The purpose of creating Smoke Free Worksites and Public Places is <u>based in public health</u> <u>concerns</u>. The following are five key points that identify public health concerns and address selected issues regarding the affect of this initiative on business and personal rights.

- 1) This initiative is intended to address the <u>public health concerns of death and illness caused</u> <u>by second-hand smoke</u>. In 2003 there were 16 deaths related to second-hand smoke in Montcalm County. See Attachment #1, "Montcalm County Smoking Facts".
- 2) The U.S. Surgeon General has reviewed the science and stated that there are <u>NO safe levels</u> of second-hand smoke. See Attachment #2.1, "Health Consequences in Brief: The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General, U.S. Department of Health and Human Services", and Attachment #2.2, "Excerpt of Executive Summary: The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General ~ Executive Summary".
- 3) The <u>utilization of Regulations or Ordinances has been shown to be markedly successful</u>. A study done in Pueblo, CO demonstrated that heart attack rates of the area went down by 27 percent. Another study in Helena, MT found a 40 percent drop in heart attacks. Both of these were related to the enactment of smoke free ordinances. It is clear, the benefits gained, through effective ordinances, are immediate in lower rates of heart attacks and presumably, long term in lowering rates of cancer, as well.

 1 Circulation: Journal of the American Heart Association, September 26, 2006.

 See Attachment #3, "Anti-smoking Ordinance May Help Prevent Heart Attacks", a news release from the American Heart Association.
- 4) Concerns of personal rights are usually set in the context that people have the right to smoke and that the government has too many regulations. In fact, the <u>concerns of personal rights actually support smoke free regulations</u>. See Attachment #4.1, "Thoughts on Liberty and Smoking Regulations", by Duane McBride, Chair of the Berrien County Board of Health. In addition, we all experience and most always <u>appreciate regulations that protect our health</u>. See Attachment #4.2, "Examples of Positive Regulations". Finally, it can be said that smoking is not a right but simply a choice. It is a choice that <u>introduces Class A Carcinogens into the immediate environment</u>. If we state that a person has the "right" to smoke in an enclosed environment then we are saying that one person has the "right" to turn an environment toxic, even to the point of creating health problems for all others who share this space. It is better to say that:

WE ALL HAVE THE RIGHT TO EXPECT CLEAN AIR.

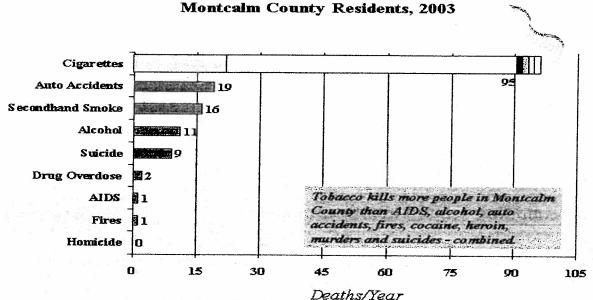
5) Concerns of costs to businesses have been stated in terms that a business owner has a right to allow smoking in the workplace and that "those customers who do not like it can go elsewhere". These statements assume this is only about customers. It is not only about the health of customers but also about the health of employees. In fact, research shows that people are already avoiding smoke filled businesses. This initiative offers protection to those who must now work in smoke filled environments. Furthermore, research in over 15 Smoke Free States and in Smoke Free countries such as Ireland, England, Scotland, as well as others, indicate economic benefits for businesses that become smoke free. See Attachment #5.1, "The Economic Impact for Smoke Free Businesses" and Attachment #5.2, "Economic Study in Minnesota".

Reference Document Attachments

Attachment #	Name of Attachment	Source		
Attachment #1	Montcalm County Smoking Facts	Michigan Department of Community Health, Michigan Behavioral Risk Factor Survey & Local Health Department Estimates; 2000 - 2004		
Attachment #2.1	Health Consequences in Brief: The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General, U.S. Department of Health and Human Services	Surgeon General, U.S. Department of Health and Human Services www.cdc.gov/tobacco		
Attachment #2.2	Excerpt of Executive Summary: The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General, U.S. Department of Health and Human Services	Surgeon General, U.S. Department of Health and Human Services www.cdc.gov/tobacco		
Attachment #3	Anti-Smoking Ordinances May Help Prevent Heart Attacks	American Heart Association; News Release of September 25, 2006		
Attachment #4.1	Thoughts on Liberty and Smoking Regulations	Duane McBride, Chair, Berrien County Board of Health		
Attachment #4.2	Examples of Positive Regulations	Montcalm Tobacco Reduction Action Coalition – 989-831-4591		
Attachment #5.1	The Economic Impact of Smoke-Free Worksite Ordinances	Variety of Sources		
Attachment #5.2	Economic Study in Minnesota Gives Support to Michigan Statewide Smokefree Legislation	Make MI Air Smokefree www.MakeMIAirSmokefree.org		

Montcalm County Smoking Facts

Causes of Preventable Death



Source: Michigan Department of Community Health, Division for Vital Records and Health Statistics and Centers for Disease Control and Prevention; Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC)

Adult Smoking Rate

24.1%

Source: Michigan Department of Community Health, Michigan Behavioral Risk Factor Survey & Local Health Department Estimates; 2000 – 2004. Note: Montcalm County is part of Mid-Michigan District Health Department with Clinton County and Gratiot County.

* The adult smoking rate for the State of Michigan is currently at 23.4%.

Women who smoked while pregnant

20.9%

Source: Michigan Resident Birth Files, Vital Records and Health Data Development Section, Michigan Department of Community Health, 2003

- The current pre-natal smoking rate for the State of Michigan is 14.4%.
- Smoking during pregnancy is the foremost preventable cause of illness and death among mothers and infants
- Pregnant women who smoke or who are exposed to secondhand smoke are between 1.5 and 3.5 times more likely to have a low birth-weight baby.

Deaths that are directly caused by smoking

95

Source: Michigan Department of Community Health, Division for Vital Records and Health Statistics and Centers for Disease Control and Prevention; Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC), 2003

- In 2003, there were a total of 575 deaths in Montcalm County, 95 or 16.5% of those deaths can be linked directly to tobacco use.
- Smoking related illnesses include but are not limited to: heart disease, stroke, respiratory diseases, lung cancer and other tobacco related cancers.

Montcalm County Smoking Facts

Deaths to non-smokers due to SHS exposure

16

Source: Michigan Department of Community Health, Division for Vital Records and Health Statistics and Centers for Disease Control and Prevention; Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC), 2003

- Every year in Michigan over 2,490 non-smokers die as a result of exposure to secondhand smoke.
- Research shows that even 30 minutes of exposure to secondhand smoke can cause heart damage similar to that of a habitual smoker, the kind of damage that can lead to a heart attack.

Smoking-Related Direct Health Care Costs

\$20,383,963

Source: Michigan Department of Community Health, Division for Vital Records and Health Statistics and Centers for Disease Control and Prevention; Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC), 2003

Direct health care costs include but are not limited to medical expenditures paid for: ambulatory, hospital, prescription drugs, nursing homes and other personal care

Medicaid smoking related health care costs

\$6,767,475

Source: Michigan Department of Community Health, Division for Vital Records and Health Statistics and Centers for Disease Control and Prevention; Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC), 2003

Approximately 33.2% of Montcalm County's smoking related health care costs are paid by Medicaid

Smoking related health care costs per capita

\$324

Source: Michigan Department of Community Health, Division for Vital Records and Health Statistics and Centers for Disease Control and Prevention; Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC), 2003

- ❖ Each resident of Montcalm County pays approximately \$324 each year to treat smoking related illnesses.
- * The average smoking-related health care costs for the State Of Michigan is \$311 per capita.

Taxes Paid By Michigan Households to State/Federal Governments to Cover Costs Related to Smoking

\$557

per household

Source: Tobacco Free Kids, 2002

* The cost to each household in Montcalm County to pay for smoking-related costs at the State and the Federal Level.

Fires Due to Smoking Materials

12

Source: National Fire Incident Reporting System, 2003 - 2004

- Number of residential fires that were caused by smoking materials: Lighted cigarette, match, cigarette lighter, pipe or cigar.
- Only 4% of all residential fires are caused by smoking materials, but they account for 19% of residential fire fatalities and 9% of the injuries.

Enrollees to Michigan Tobacco Cessation Quit Line

77

Source: Leade Health, Inc. Outcomes Report: October 2003 – September 2005

❖ 28% of Quit Line participants were tobacco-free three-month post enrollment, and by 12 months, 23% of Quit Line participants reported being tobacco-free.

The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General, U.S. Department of Health and Human Services

There is No Risk-Free Level of Exposure to Secondhand Smoke

The U.S. Surgeon General has concluded that breathing even a little secondhand smoke poses a risk to your health.

 Scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke. Breathing even a little secondhand smoke can be harmful to your health.

Secondhand smoke causes lung cancer.

- Secondhand smoke is a known human carcinogen and contains more than 50 chemicals that can cause cancer.
- Concentrations of many cancer-causing and toxic chemicals are potentially higher in secondhand smoke than in the smoke inhaled by smokers.

Secondhand smoke causes heart disease.

- Breathing secondhand smoke for even a short time can have immediate adverse effects on the cardiovascular system, interfering with the normal functioning of the heart, blood, and vascular systems in ways that increase the risk of heart attack.
- Even a short time in a smoky room can cause your blood platelets to become stickier, damage the lining of blood vessels, decrease coronary flow velocity reserves, and reduce heart rate variability.
- Persons who already have heart disease are at especially high risk of suffering adverse affects from breathing secondhand smoke, and should take special precautions to avoid even brief exposure.

Secondhand smoke causes acute respiratory effects.

- Secondhand smoke contains many chemicals that can quickly irritate and damage the lining of the airways.
- Even brief exposure can trigger respiratory symptoms, including cough, phlegm, wheezing, and breathlessness.
- Brief exposure to secondhand smoke can trigger an asthma attack in children with asthma.
- Persons who already have asthma or other respiratory conditions are at especially high risk for being affected by secondhand smoke, and should take special precautions to avoid secondhand smoke exposure.

Secondhand smoke can cause sudden infant death syndrome and other health consequences in infants and children.

Reference Document Attachment #2.1 - Health Consequences in Brief

- Smoking by women during pregnancy has been known for some time to cause SIDS.
- Infants who are exposed to secondhand smoke after birth are also at greater risk of SIDS.
- Children exposed to secondhand smoke are also at an increased risk for acute respiratory infections, ear problems, and more severe asthma. Smoking by parents causes respiratory symptoms and slows lung growth in their children.

Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate secondhand smoke exposure.

- The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the preeminent U.S. standard-setting body on ventilation issues, has concluded that ventilation technology cannot be relied on to completely control health risks from secondhand smoke exposure.
- Conventional air cleaning systems can remove large particles, but not the smaller particles or the gases found in secondhand smoke.
- Operation of a heating, ventilating, and air conditioning system can distribute secondhand smoke throughout a building.

Information contained on this highlight sheet has been taken directly from The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. For more information, please refer to the Resources and How to Protect Yourself and Your Loved Ones from Secondhand Smoke highlight sheets.

Additional highlight sheets are also available at www.cdc.gov/tobacco.

Last revised: June 27, 2006

Excerpt from the 2006 publication located at www.surgeongeneral.gov/tobacco and titled; The Health Consequences of Involuntary Exposure to Tobacco Smoke A Report of the Surgeon General ~ Executive Summary

Major Conclusions

This report returns to involuntary smoking, the topic of the 1986 Surgeon General's report. Since then, there have been many advances in the research on secondhand smoke, and substantial evidence has been reported over the ensuing 20 years. This report uses the revised language for causal conclusions that was implemented in the 2004 Surgeon General's report (USDHHS 2004). Each chapter provides a comprehensive review of the evidence, a quantitative synthesis of the evidence if appropriate, and a rigorous assessment of sources of bias that may affect interpretations of the findings. The reviews in this report reaffirm and strengthen the findings of the 1986 report.

With regard to the involuntary exposure of nonsmokers to tobacco smoke, the scientific evidence now supports the following major conclusions:

- 1. Secondhand smoke causes premature death and disease in children and in adults who do not smoke.
- 2. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma. Smoking by parents causes respiratory symptoms and slows lung growth in their children.
- 3. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer.
- 4. The scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke.
- 5. Many millions of Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces despite substantial progress in tobacco control.

6. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposures of nonsmokers to secondhand smoke.

Chapter Conclusions

Chapter 2. Toxicology of Secondhand Smoke

Evidence of Carcinogenic Effects from Secondhand Smoke Exposure

- 1. More than 50 carcinogens have been identified in sidestream and secondhand smoke.
- 2. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and its condensates and tumors in laboratory animals.
- 3. The evidence is sufficient to infer that exposure of nonsmokers to secondhand smoke causes a significant increase in urinary levels of metabolites of the tobacco-specific lung carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK). The presence of these metabolites links exposure to secondhand smoke with an increased risk for lung cancer.
- 4. The mechanisms by which secondhand smoke causes lung cancer are probably similar to those observed in smokers. The overall risk of secondhand smoke exposure, compared with active smoking, is diminished by a substantially lower carcinogenic dose.

Mechanisms of Respiratory Tract Injury and Disease Caused by Secondhand Smoke Exposure

5. The evidence indicates multiple mechanisms by which secondhand smoke exposure causes injury to the respiratory tract.

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6. The evidence indicates mechanisms by which secondhand smoke exposure could increase the risk for sudden infant death syndrome.

Mechanisms of Secondhand Smoke Exposure and Heart Disease

- 7. The evidence is sufficient to infer that exposure to secondhand smoke has a prothrombotic effect.
- 8. The evidence is sufficient to infer that exposure to secondhand smoke causes endothelial cell dysfunctions.
- 9. The evidence is sufficient to infer that exposure to secondhand smoke causes atherosclerosis in animal models.

Chapter 3. Assessment of Exposure to Secondhand Smoke

Building Designs and Operations

- 1. Current heating, ventilating, and air conditioning systems alone cannot control exposure to secondhand smoke.
- 2. The operation of a heating, ventilating, and air conditioning system can distribute secondhand smoke throughout a building.

Exposure Models

- 3. Atmospheric concentration of nicotine is a sensitive and specific indicator for secondhand smoke.
- 4. Smoking increases indoor particle concentrations.
- 5. Models can be used to estimate concentrations of secondhand smoke.

Biomarkers of Exposure to Secondhand Smoke

- 6. Biomarkers suitable for assessing recent exposures to secondhand smoke are available.
- 7. At this time, cotinine, the primary proximate

metabolite of nicotine, remains the biomarker of choice for assessing secondhand smoke exposure.

8. Individual biomarkers of exposure to secondhand smoke represent only one component of a complex mixture, and measurements of one marker may not wholly reflect an exposure to other components of concern as a result of involuntary smoking.

Chapter 4. Prevalence of Exposure to Secondhand Smoke

- 1. The evidence is sufficient to infer that large numbers of nonsmokers are still exposed to secondhand smoke.
- 2. Exposure of nonsmokers to secondhand smoke has declined in the United States since the 1986 Surgeon General's report, *The Health Consequences of Involuntary Smoking*.
- 3. The evidence indicates that the extent of secondhand smoke exposure varies across the country.
- 4. Homes and workplaces are the predominant locations for exposure to secondhand smoke.
- 5. Exposure to secondhand smoke tends to be greater for persons with lower incomes.
- 6. Exposure to secondhand smoke continues in restaurants, bars, casinos, gaming halls, and vehicles.

Chapter 5. Reproductive and Developmental Effects from Exposure to Secondhand Smoke

Fertility

1. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke and female fertility or fecundability. No data were found on paternal exposure to

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secondhand smoke and male fertility or fecundability.

Pregnancy (Spontaneous Abortion and Perinatal Death)

2. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke during pregnancy and spontaneous abortion.

Infant Deaths

3. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and neonatal mortality.

Sudden Infant Death Syndrome

4. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and sudden infant death syndrome.

Preterm Delivery

5. The evidence is suggestive but not sufficient to infer a causal relationship between maternal exposure to secondhand smoke during pregnancy and preterm delivery.

Low Birth Weight

6. The evidence is sufficient to infer a causal relationship between maternal exposure to secondhand smoke during pregnancy and a small reduction in birth weight.

Congenital Malformations

7. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and congenital malformations.

Cognitive Development

8. The evidence is inadequate to infer the presence or absence of a causal relationship

between exposure to secondhand smoke and cognitive functioning among children.

Behavioral Development

9. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and behavioral problems among children.

Height/Growth

10. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke and children's height/growth.

Childhood Cancer

- 11. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood cancer.
- 12. The evidence is inadequate to infer the presence or absence of a causal relationship between maternal exposure to secondhand smoke during pregnancy and childhood cancer.
- 13. The evidence is inadequate to infer the presence or absence of a causal relationship between exposure to secondhand smoke during infancy and childhood cancer.
- 14. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood leukemias.
- 15. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood lymphomas.
- 16. The evidence is suggestive but not sufficient to infer a causal relationship between prenatal and postnatal exposure to secondhand smoke and childhood brain tumors.

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17. The evidence is inadequate to infer the presence or absence of a causal relationship between prenatal and postnatal exposure to secondhand smoke and other childhood cancer types.

Chapter 6. Respiratory Effects in Children from Exposure to Secondhand Smoke

Lower Respiratory Illnesses in Infancy and Early Childhood

- 1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and lower respiratory illnesses in infants and children.
- 2. The increased risk for lower respiratory illnesses is greatest from smoking by the mother.

Middle Ear Disease and Adenotonsillectomy

- 3. The evidence is sufficient to infer a causal relationship between parental smoking and middle ear disease in children, including acute and recurrent otitis media and chronic middle ear effusion.
- 4. The evidence is suggestive but not sufficient to infer a causal relationship between parental smoking and the natural history of middle ear effusion.
- 5. The evidence is inadequate to infer the presence or absence of a causal relationship between parental smoking and an increase in the risk of adenoidectomy or tonsillectomy among children.

Respiratory Symptoms and Prevalent Asthma in School-Age Children

6. The evidence is sufficient to infer a causal relationship between parental smoking and cough, phlegm, wheeze, and breathlessness among children of school age.

7. The evidence is sufficient to infer a causal relationship between parental smoking and ever having asthma among children of school age.

Childhood Asthma Onset

- 8. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and the onset of wheeze illnesses in early childhood.
- 9. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure from parental smoking and the onset of childhood asthma.

Atopy

10. The evidence is inadequate to infer the presence or absence of a causal relationship between parental smoking and the risk of immunoglobulin E-mediated allergy in their children.

Lung Growth and Pulmonary Function

- 11. The evidence is sufficient to infer a causal relationship between maternal smoking during pregnancy and persistent adverse effects on lung function across childhood.
- 12. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke after birth and a lower level of lung function during childhood.

Chapter 7. Cancer Among Adults from Exposure to Secondhand Smoke

Lung Cancer

1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and lung cancer among lifetime nonsmokers. This conclusion extends to all secondhand smoke exposure, regardless of location.

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2. The pooled evidence indicates a 20 to 30 percent increase in the risk of lung cancer from secondhand smoke exposure associated with living with a smoker.

Breast Cancer

3. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke and breast cancer.

Nasal Sinus Cavity and Nasopharyngeal Carcinoma

- 4. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and a risk of nasal sinus cancer among nonsmokers.
- 5. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and a risk of nasopharyngeal carcinoma among nonsmokers.

Cervical Cancer

6. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and the risk of cervical cancer among lifetime nonsmokers.

Chapter 8. Cardiovascular Diseases from Exposure to Secondhand Smoke

- 1. The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and increased risks of coronary heart disease morbidity and mortality among both men and women.
- 2. Pooled relative risks from meta-analyses indicate a 25 to 30 percent increase in the risk of coronary heart disease from exposure to secondhand smoke.
- 3. The evidence is suggestive but not sufficient to infer a causal relationship between exposure

to secondhand smoke and an increased risk of stroke.

4. Studies of secondhand smoke and subclinical vascular disease, particularly carotid arterial wall thickening, are suggestive but not sufficient to infer a causal relationship between exposure to secondhand smoke and atherosclerosis.

Chapter 9. Respiratory Effects in Adults from Exposure to Secondhand Smoke

Odor and Irritation

- 1. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and odor annoyance.
- 2. The evidence is sufficient to infer a causal relationship between secondhand smoke exposure and nasal irritation.
- 3. The evidence is suggestive but not sufficient to conclude that persons with nasal allergies or a history of respiratory illnesses are more susceptible to developing nasal irritation from secondhand smoke exposure.

Respiratory Symptoms

- 4. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and acute respiratory symptoms including cough, wheeze, chest tightness, and difficulty breathing among persons with asthma.
- 5. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and acute respiratory symptoms including cough, wheeze, chest tightness, and difficulty breathing among healthy persons.
- 6. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and chronic respiratory symptoms.

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Lung Function

- 7. The evidence is suggestive but not sufficient to infer a causal relationship between short-term secondhand smoke exposure and an acute decline in lung function in persons with asthma.
- 8. The evidence is inadequate to infer the presence or absence of a causal relationship between short-term secondhand smoke exposure and an acute decline in lung function in healthy persons.
- 9. The evidence is suggestive but not sufficient to infer a causal relationship between chronic secondhand smoke exposure and a small decrement in lung function in the general population.
- 10. The evidence is inadequate to infer the presence or absence of a causal relationship between chronic secondhand smoke exposure and an accelerated decline in lung function.

Asthma

- 11. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and adult-onset asthma.
- 12. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and a worsening of asthma control.

Chronic Obstructive Pulmonary Disease

- 13. The evidence is suggestive but not sufficient to infer a causal relationship between secondhand smoke exposure and risk for chronic obstructive pulmonary disease.
- 14. The evidence is inadequate to infer the presence or absence of a causal relationship between secondhand smoke exposure and morbidity in persons with chronic obstructive pulmonary disease.

Chapter 10. Control of Secondhand Smoke Exposure

- 1. Workplace smoking restrictions are effective in reducing secondhand smoke exposure.
- 2. Workplace smoking restrictions lead to less smoking among covered workers.
- 3. Establishing smoke-free workplaces is the only effective way to ensure that secondhand smoke exposure does not occur in the workplace.
- 4. The majority of workers in the United States are now covered by smoke-free policies.
- 5. The extent to which workplaces are covered by smoke-free policies varies among worker groups, across states, and by sociodemographic factors. Workplaces related to the entertainment and hospitality industries have notably high potential for secondhand smoke exposure.
- 6. Evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry.
- 7. Evidence suggests that exposure to secondhand smoke varies by ethnicity and gender.
- 8. In the United States, the home is now becoming the predominant location for exposure of children and adults to secondhand smoke.
- 9. Total bans on indoor smoking in hospitals, restaurants, bars, and offices substantially reduce secondhand smoke exposure, up to several orders of magnitude with incomplete compliance, and with full compliance, exposures are eliminated.
- 10. Exposures of nonsmokers to secondhand smoke cannot be controlled by air cleaning or mechanical air exchange.

Reference Document Attachment #3

FOR RELEASE: 4 p.m. EDT, Monday Sept. 25, 2006



CONTACT: For journal copies only, please call: (214) 706-1396
For other information, call: Bob Brenzing (616) 285-1888

American Heart Association rapid access journal report:

Anti-smoking ordinance may help prevent heart attacks

DALLAS, Sept. 26 – After a Colorado city banned smoking in workplaces and public buildings, the number of people suffering heart attacks in the area swiftly and dramatically decreased, according to a study in *Circulation: Journal of the American Heart Association*.

"Adopting a non-smoking ordinance has the potential to rapidly improve the cardiovascular health of a community," said lead author Carl Bartecchi, M.D., distinguished clinical professor of medicine at the University of Colorado School of Medicine in Denver.

The study evaluated the impact of a 2003 ordinance in the 103,648-person, blue-collar city of Pueblo, Colorado. Pueblo, located in southern Colorado, has a higher percentage of smokers than the statewide average (22.6 percent vs. 18.6 percent).

The strict ordinance forbids smoking in indoor workplaces and all public buildings, including restaurants, bars, shops and recreational facilities such as bowling alleys. Both smokers and facility owners receive stiff fines for violations.

Researchers compared admissions at Pueblo's two hospitals from 1.5 years before and 1.5 years after the ordinance took effect. Both hospitals provide care for all recognized heart attacks in Pueblo and the surrounding county.

In the 18 months after the ordinance took effect, admissions for heart attacks for Pueblo City residents dropped 27 percent from the 18-month period before the ordinance. In the same period, heart attack hospitalizations did not change significantly for residents of surrounding Pueblo County or in the comparison city of Colorado Springs, neither of which have non-smoking ordinances.

After the ordinance went into effect, heart attack rates fell by:

- 70 per 100,000 person-years in Pueblo City;
- 20 per 100,00 person-years in Pueblo County outside the city; and
- 3 per 100,000 person-years in El Paso County (Colorado Springs).

"You can save lives with drugs and expensive, sophisticated devices, but this single community action led to 108 fewer heart attacks in an 18-month period," Bartecchi said.

"Each hospital admission for a heart attack costs an average of \$20,000 here in Pueblo, so in addition to saving lives, non-smoking ordinances also save a lot of money," he added.

The researchers also analyzed the possible effects of seasonality and found that these seasonal differences had no effects on the significant lowering following the non-smoking ordinance. The

researchers also stated that other potential confounding factors such as air pollution and communitywide changes on cardiovascular disease preventive care did not have any significant impact on their findings in their paper.

"The development of atherosclerosis that leads to a heart attack usually takes 20 years. The decline in the number of heart attack hospitalizations within the first year and a half after the non-smoking ban that was observed in this study is most likely due to a decrease in the effect of secondhand smoke as a triggering factor for heart attacks. The ordinance will likely continue to decrease the number of heart attacks and save lives every year," said American Heart Association President Raymond J. Gibbons, M.D.

According to the association, more than 35,000 nonsmokers die each year in the United States from coronary heart disease due to exposure to secondhand smoke. A recent Surgeon General's report also confirms that secondhand smoke is a major risk factor for coronary heart disease and there is no safe level of exposure to secondhand smoke.

According to the authors, other studies have shown that the coronary blood vessels are very sensitive to secondhand smoke. Within only minutes or hours of exposure:

- the lining of blood vessels malfunction, making the vessels less able to expand when needed.
- platelets in the blood become activated, stickier and more likely to form clots.

"These changes can lead to a heart attack," Bartecchi said.

In addition to clearing the indoor air and reducing heart attack risk for nonsmokers, non-smoking ordinances encourage current smokers to quit or cut back. Ten years after smoke-free workplace legislation in California, for example, 90 percent of citizens approve of the law and most smokers who quit credit the law for helping.

The Pueblo results mirror and expand upon those of a shorter study involving a nonsmoking ordinance in the smaller community of Helena, Montana. There, heart attacks fell 40 percent in the six months the ordinance was in effect, but returned to previous levels after a legal challenge suspended the ordinance. However, that study was not able to control for a number of factors considered in the present study.

"After the Helena study, the Centers for Disease Control recommended that people at risk of coronary heart disease avoid secondhand smoke," Bartecchi said. "This study should strengthen that recommendation. The Pueblo experience adds to mounting evidence that smoke-free indoor air laws are common-sense public health measures that save lives. These results should also encourage other municipalities to pass smoke-free ordinances."

The study was partially funded by the Colorado Department of Public Health and Environment (CDPHE).

Co-authors are Robert N. Alsever, M.D.; Christine Nevin-Woods, D.O., M.P.H.; William M. Thomas, Ph.D.; Raymond O. Estacio, M.D.; Becki Bucher Bartelson, Ph.D.; and Mori J. Krantz, M.D. **Editor's Note:** For more information on smoking and cardiovascular disease, visit <u>americanheart.org</u>.

Statements and conclusions of study authors published in the American Heart Association scientific journals are solely those of the study authors and do not necessarily reflect association policy or position. The American Heart Association makes no representation or warranty as to their accuracy or reliability.

Reference Document Attachment #4.1 & 4.2

Attachment #4.1

Thoughts on Liberty and Smoking Regulations

Duane McBride, Chair; Berrien County Board of Health

A foundational perspective on the nature of liberty in the American Experience was first published by John Stuart Mill in his book **On Liberty** in 1859. For Mill, as well as for many Americans in his time and to this day, the American experience was not about democratic majority rule as much as it was about individual liberty.

Mill was very concerned about the tyranny of the majority in a democracy. He argued that the basis of liberty was that each individual was sovereign "over himself, over his body and mind". For Mill, the only right of government or society to interfere with the exercise of individual liberty was the harm principle. Individuals must be free to do anything to their mind or body as long as it did not harm others.

The harm principle is core to the smoking regulation issue. As the Surgeon General has noted, there is no safe level of second hand or side smoke in enclosed places. Smoking in enclosed public places is not private individual behavior. Smoking in enclosed public places interferes with the liberty of others to breathe clean air and enjoy their health.

What is being proposed in the tobacco regulation is not to restrict human freedom — to restrict an individual's control over their mind and body — but to respect the harm principle; to not let individuals limit the freedom of others in their choice of where to work or shop or participate in enclosed public gatherings. Citizens should be able to be in public places without doing harm to their bodies. This principle of liberty should be protected as smoking regulation measures are being considered.

Attachment #4.2 Examples of Positive Regulations

These are examples of regulations or laws that most all of us appreciate even though the personal choices or "rights" of specific individuals are limited.

- 1) We have the right to bear arms, but not to discharge them within city limits.
- 2) We have a right to drive a car, but not at any speed and not to disregard any traffic signs we choose.
- 3) We have the right to drink as much alcohol as we want in our homes, but not in our cars.
- 4) We have the right to host parties but not when the noise causes problems for our neighbors.
- 5) We have the right to build our own home, but not if the quality of workmanship is a danger to those that will live in the home.
- 6) Restaurant owners have the right to offer any food they choose, but not when the food handling practices could lead to illness.

Therefore, likewise, we have the right to smoke, but not when it causes harm to others. The Surgeon General's Report is clear; there are no safe levels of second-hand smoke (Major Conclusions, item 4). Further, smoking sections, cleaning the air and ventilating buildings cannot eliminate exposure to secondhand smoke (Major Conclusions, item 6).

Reference Document Attachment #5.1

The Economic Impact of Smoke-Free Worksite Ordinances

- Exposure to secondhand smoke is not only an important health concern, but also an important economic concern. Employers carry a significant economic burden when their employees smoke and when their employees are exposed to secondhand smoke in the workplace.
- This burden can be felt in increased insurance premiums (health, disability, life), lost productivity, fires, additional housekeeping costs, and increased recruitment and training costs resulting from premature death and disability of employees who smoke.
- There can also be additional medical care costs and reduced productivity for employees with conditions such as heart disease and asthma, that are exacerbated by exposure to secondhand smoke.
- Workplace smoking increases an employer's legal liability. Nonsmoking employees have received settlements in cases based on their exposure to secondhand smoke. Employers are also more prone to claims through the Americans with Disabilities Act.
- Employers pay an average of \$2,189 in workers' compensation costs for smokers compared with \$176 for nonsmokers. ("The Association of Health Risks With Workers' Compensation Costs," June, 2004)
- Employees who smoke have an average insurance payment for health care of \$1,145, while nonsmoking employees average \$762. ("The Cost of Smoking to Business," May, 2004)
- When an employee stops smoking, it produces a 20% savings in medical costs. ("The Cost of Smoking to Business," May, 2004)
- Research has found that smokers who worked in communities with strong smokefree ordinances were 38% more likely to quit smoking than smokers in communities with no ordinance. ("The Impact of Workplace Smoking Ordinances in California on Smoking Cessation," May, 2000)
- Research has found that adolescents who worked in smoke-free workplaces were 32% less likely to smoke than those who worked in a workplace with no smoking restrictions. ("Association Between Household and Workplace Smoking Restrictions and Workplace Smoking Restrictions and Adolescent Smoking," August, 2000)
- Not only do smoke-free ordinances protect the health of nonsmokers, but they
 also prompt smokers to quit, make it less likely that others will start to smoke, and
 reduce the economic burden on employers and businesses.

Reference Document Attachment #5.1

- A February, 2000 survey in Michigan found that the average employee who smokes takes three smoking breaks each workday averaging 13 minutes for each break. If these employees are paid an average of \$13 an hour, Michigan employers spend about \$1.7 billion annually on employee smoke breaks ("Smoking Survey has surprises, Work Breaks average 39 minutes daily," Detroit Free Press, March 27, 2000).
- Smokers, on average, miss 6.16 days of work per year due to sickness (including smoking related acute and chronic conditions), compared to nonsmokers, who miss 3.86 days of work per year. (Halpern, M.T.; Shikiar, R.; Rentz, A.M.; Khan, Z.M., "Impact of smoking status on workplace absenteeism and productivity," Tobacco Control 10(3): 233-238, September 2001).
- The Organization for Economic Cooperation and Development estimates that construction and maintenance costs are seven percent higher in buildings that allow smoking than in buildings that are smokefree. ([n.a.], "The dollars (and sense) benefits of having a smoke-free workplace," Michigan Department of Community Health, [2000]).



Economic Study in Minnesota Gives Support to Michigan Statewide Smokefree Legislation

According to a new study on economic data from seven Minnesota communities with smokefree ordinances and from the state as a whole, smokefree policies do not harm local economies. The study also found that the number of hospitality establishments increased in communities that went smokefree, as well as sales staying consistent for existing businesses.

The study was a review of data from 1994 through 2005 in Beltrami, Hennepin and Ramsey counties, the cities of Bloomington, Golden Valley, Minneapolis and Moorhead, and the state of Minnesota. It was conducted by the Minnesota Institute of Public Health. "National research in this area is substantial and conclusive: throughout the United States, smoke-free ordinances have been found to have a neutral or positive economic impact on communities," said Barbara Schillo, ClearWay Minnesota Director of Research Programs. "These data are consistent with the other studies."

In January 2007, a public opinion survey found that 86 percent of Minnesotans said they would go out to bars and restaurants as much or more following the implementation of a statewide smokefree air law. The survey also found that 69 percent of Minnesotans support a comprehensive statewide smokefree air law that includes bars and restaurants. "We have known for a long time that smokefree policies are good for workers' health," said David Willoughby, chief executive officer of ClearWay Minnesota. "Now we have local evidence to counter the myth that they are bad for business. This study shows that it is possible to have a healthy workplace without sacrificing the economic vitality of the hospitality industry."

Nearly two-thirds of Michigan registered voters polled in 2005 favor a new law creating smokefree environments in all Michigan workplaces. This study also gives support to the 80 percent of Michigan registered voters who would be more likely or just as likely to patronize their favorite restaurants if they went smokefree.

Visit www.MakeMIAirSmokefree.org to join the fight in making Michigan smokefree!